



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 05 2011

Lieutenant Colonel James A. DeLapp
District Engineer
Nashville District Corps of Engineers
Attn: Marty Tyree (Regulatory Division)
3701 Bell Road
Nashville, Tennessee 37214

Subject: Individual Permit LRN-2010-0697, Birmingham Coal and Coke,
Posey Mill #2, in Franklin County, Alabama

Dear Colonel DeLapp:

The U.S. Environmental Protection Agency, Region 4, has reviewed the Individual Permit application LRN-2010-00697 for the proposed 677 acre Posey Mill #2 coal mine in Franklin County, Alabama. Impacts to jurisdictional waters of the United States include 14,855 linear feet (lf) of ephemeral stream, 34,855 lf of intermittent streams (49,710 lf total), 1.73 acres of open water impoundment and 0.62 acres of emergent wetlands. This project is within the United States Geographic Survey Ecoregion 68 of the major Appalachian geographic province. The applicant proposes to provide compensatory mitigation with a combination of on-site restoration during and after mining and purchase of mitigation credits from a Corps approved mitigation bank.

Aquatic Resources of National Importance

The EPA believes that the aquatic resources proposed to be impacted as a result of this project are important headwater streams. Headwater streams provide numerous physical, chemical and biological functions that directly affect the physical, chemical and biological integrity of downstream waters. The functions of headwater streams include providing hydrologic retention capacity that reduces downstream flooding and augments baseflow; sediment retention; temperature regulation; uptake, transformation and retention of nutrients and contaminants; organic matter processing and export to support downstream food webs and contributions to the biological integrity of river networks via provision of spawning and nursery habitats and niche habitat for unique and threatened species. Headwater streams such as those proposed to be impacted by this project are characterized by riffle and pool complexes that are considered special aquatic sites in 40 CFR §230.45 due to their special ecological characteristics that are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region, 40 CFR §230.3(q-1).

The proposed project drains in to the Upper Bear Creek Reservoir (Reservoir) approximately 12 river miles downstream. The Reservoir was created in 1978 for flood control/recreation and impounds 1,850 acres of water at full pool. The Reservoir is one of four Tennessee Valley Authority reservoirs operated by the Bear Creek Development Authority. The Reservoir is on the Alabama 303(d) list for dissolved

oxygen and mercury (sources not related to coal). The 2003 Tennessee River Basin Watershed Management Plan listed contribution from both abandoned and active mines as a concern for the Bear Creek watershed.

For the reasons above, the EPA believes the project has the potential to have unacceptable adverse impacts on aquatic resources of national importance (ARNI).

Alternatives Analysis – 40 CFR §230.10(a)

Overall, the EPA does not have issue with the avoidance discussion in the application. The mine concept avoids impacts to perennial streams and extracts coal in such a manner that sterilized coal reserves, that may incur additional environmental impacts in the future as extraction technology advances and demand for coal increases, are not left behind.

Significant Degradation of the Aquatic Ecosystem – 40 CFR §230.10(c)

The Section 404(b)(1) Guidelines, at 40 CFR §230.10(c), provide that no discharge shall be permitted that will cause or contribute to significant degradation of the waters of the U.S. When evaluating permit applications in light of this provision, key factual assessments should include all direct, indirect and cumulative adverse effects of the proposed mine in consideration of current, previous and reasonably foreseeable future impacts; a watershed assessment of total length of streams to be impacted; the type of streams to be impacted, including extent of impacts to critical headwater streams and/or perennial reaches; an assessment of impacts based on a watershed-scale evaluation of stream quality (physical, chemical and biological) and other relevant factors. Based on the limited information available to characterize existing conditions on-site and existing conditions from streams elsewhere in the watershed, both of which are further discussed below, the EPA believes that this project may cause or contribute to significant degradation of the aquatic ecosystem inconsistent with the requirements of 40 CFR §230.10(c).

Minimization and Compensation for Unavoidable Impacts – 40 CFR §230.10(d) and 40 CFR §230.91-98

The Clean Water Act (CWA), supporting 404(b)(1) Guidelines and the 2008 Mitigation Rule (Rule) at 40 CFR §230.10(d) provides that no discharge shall be permitted unless appropriate and practicable steps have been taken that will minimize potential adverse environmental impacts of the discharge on the aquatic ecosystem. Unavoidable impacts require adequate compensatory mitigation. The applicant is proposing to return the site to Approximate Original Contour and in so doing, reestablish a portion of the impacted streams on site and other portions through an approved mitigation bank. The application should make clear the exact values of each mitigation activity.

The EPA believes there may be more opportunity to minimize the project impacts. The project design proposes placement of sediment ponds in streams far downstream of the project site. The applicant states that increasing the length of stream segments between the site and the ponds will contribute to dilution and deposition of solids in the stream to assist with sediment control ability of the ponds. This design will use the streams as a treatment system and there may be temporary and perhaps permanent impacts to these stream segments. The EPA believes that the ponds should be sized and designed such that they are as close to the project site as possible and that stream segments used for water treatment should be appropriately mitigated. The fate of the ponds after mining is not clearly identified. In some cases, the

landowner may request that ponds are left in place as permanent water impoundments. The amount of stream length impacted by the permanent ponds has not been calculated into the current stream impacts. To mitigate for any permanent ponds the applicant proposes to create additional stream reaches upstream of the pond during the reclamation process. The permanent ponds are avoidable impacts and creation of additional reaches up stream where none existed prior to mining may not be successful. The applicant should identify the final fate of all ponds and mitigate permanent impacts appropriately. It is the EPA's preference that all ponds are removed after mining and the impacted stream reaches are restored to original condition.

An individual section 404 permit should only be issued after determining that the proposed discharge complies with applicable provisions of 40 CFR §230, including those which require the permit applicant to take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States. Practicable means available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines. The EPA has serious concerns regarding the technical feasibility of the proposed compensatory mitigation plan and compliance with the Rule but will refrain from addressing the plan deficiencies until the applicant has demonstrated compliance with the avoidance and minimization requirements.

Determination of Cumulative Effects on the Aquatic Ecosystem – 40 CFR §230.11(g)

The 404(b)(1) Guidelines, at 40 CFR §230.11(g), provide that cumulative effects attributable to the proposed project should be predicted to the extent reasonable and practicable, including the collective effects of any number of individual discharges of dredged or fill material in the same watershed, whether by the applicant alone or with others. The applicant's cumulative impact assessment did not include sufficient information to address the cumulative watershed effect of the proposed mine in consideration of current, previous and reasonably foreseeable future impacts.

National Environmental Policy Act

Based on our review of the information available, the EPA believes it may be appropriate for the U.S. Army Corp of Engineers to prepare an Environmental Impact Statement (EIS) concerning this proposed project. In making the determination regarding the need to prepare an EIS, we recommend that you consider the relatively large scale of the impacts associated with the proposed project, e.g., over 9 miles of stream impacts, as well as questions concerning how effective the proposed mitigation will be at reducing the severity of the potential direct, indirect and cumulative impacts. In that light, the EPA is uncertain that the current mitigation proposal would serve as a basis to support a Finding of No Significant Impact.

The appropriate National Environmental Policy Act (NEPA) document should comprehensively address human health impacts (drinking water, air quality, noise, etc.), ecosystem function and habitat impacts, effects of hydrologic modifications to the impacted watershed, impacts of deforestation and mining on water quality, quantity and other ecological conditions, consistency with the 2003 Tennessee River Basin Watershed Management Plan, coordination with Tennessee Valley Authority and consistency with their Bear Creek Reservoirs Land Management Plan. Additionally, the NEPA document should appropriately address the Council of Environmental Quality's February 1, 2010, Monitoring and Mitigation Guidance.

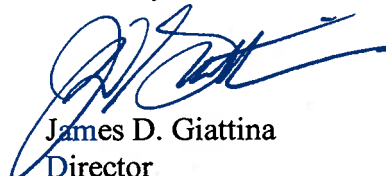
Environmental Justice

The requirements of Executive Order (E.O.) 12898 and the Presidential Memorandum accompanying it must be addressed appropriately in federal action such as permitting under Section 404 of the CWA and evaluations under the NEPA. Under E.O. 12898, "each Federal agency shall make achieving environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations." The EPA highly encourages the District to request additional information from the applicant and include EJ as part of this permit's review.

Conclusion

The EPA believes the project as currently proposed does not comply with the CWA, supporting 404(b)(1) Guidelines and the Rule. The EPA finds this project may have substantial and unacceptable adverse impacts on an ARNI. Therefore, we recommend denial of the project, as currently proposed. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of Army, Part IV, Paragraph 3(a) regarding Section 404(q) of the CWA. Thank you for the opportunity to comment on this public notice. If you have any questions, please call me at (404) 562-9345 or Mark LaRue of my staff at (404) 562-9417.

Sincerely,



James D. Giattina
Director
Water Protection Division

Enclosures

1. Natural Channel Design Review Checklist
2. Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army

cc: Mr. Marty Tyree, U.S. Army Corps of Engineers
Ms. Elizabeth Brown, Alabama Historical Commission
Mr. William Pearson, U.S. Fish & Wildlife Service
Mr. Matthew Marshall, U.S. Fish & Wildlife Service
Ms. Brandy Bowen, Alabama Department of Environmental Management
Mr. Eric Sanderson, Alabama Department of Environmental Management
Dr. Randall Johnson, Alabama Surface Mining Commission

To:

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CWilson_____DPowell_____AEllis_____PMancusi-Ungaro_____

WCOB Branch Chief_____GRicks_____JGiattina_____

Natural Channel Design Review Checklist

Project Design Checklist

Reviewer: M. LaRue

Date: 7/26/2011

Project: Posey Mill Mine #2

Engineer: DSM Engineering

Item	Submitted (Y/N)	Acceptable (Y/N)	Comments
1.0 Watershed and Geomorphic Assessment			
1.1 Watershed Assessment			
Was the watershed assessment methodology described?	N	N	Watershed approach not completed.
Was the project drainage area provided?	Y	N	Overall drainage provided, individual basins absent.
Was the percent impervious cover for the watershed provided?	NA	NA	
Was the current land use described along with future conditions?	Y	Y	
Were watershed hydrology calculations performed?	N	N	
1.2 Basemapping			
Does the project include basemapping?	Y	N	
1.3 Project Reach Geomorphic Assessment			
Was the geomorphic assessment methodology described?	N	N	
Were vertical and lateral stability analyses completed?	N	N	
Was it shown whether the instability was localized or system-wide?	N	N	
Was the cause and effect relationship of the instability identified?	N	N	
Was the channel evolution predicted?	N	N	
Were constraints that would inhibit restoration identified?	N	N	Mitigation should address complex geohydrological cycle af
1.4 Hydraulic Assessment			
Was a hydraulic assessment completed?	N	N	Detailed assessment needed for post mining restoration.
Was stream velocity, shear stress, and stream power shown in relation to stage and discharge?	N	N	
1.5 Bankfull Verification			
Was bankfull verification analysis completed?	N	N	
Were USGS gages or regional curves used to validate bankfull discharge?	N	N	
If a regional curve was used, were the curve data representative of the project data?	NA	NA	
If gages or regional curves were not available, were other methods, such as hydrology and hydraulic models used?	N	N	Detailed assesment required to assure post mining restorat

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Item	Submitted (Y/N)	Acceptable (Y/N)	Comments
2.0 Preliminary Design			
2.1 Goals and Restoration Potential			
Does the project have clear goals?	N	N	
Was the restoration potential based on the assessment data provided?	N	N	
Was a restoration strategy developed and explained based on the restoration potential?	N	N	
2.2 Design Criteria			
Were design criteria provided and explained?	N	N	Conceptual plan without supporting information.
Is the design criteria representative of reference reaches within the project area or of the same valley type, geology, and land use?	N	N	Reference reaches not identified.
2.3 Conceptual Design			
Was the conceptual channel alignment provided and developed within the design criteria?	N	N	Concept based on narrative without supporting information.
Were typical bankfull cross sections provided and developed within the design criteria?	N	N	
Were typical drawings of in-stream structures provided and their use and location explained?	Y	N	Some typicals provided but use and location not identified.
Was a draft planting plan provided?	Y	N	Plan is not based on reference riparian zone.
3.0 Final Design			
3.1 Natural Channel Design			
Was a proposed channel alignment provided and developed within the design criteria?	N	N	
Were proposed channel dimensions provided and developed within the design criteria?	N	N	
Do the proposed channel dimensions show the adjacent floodplain or flood prone area?	N	N	
Was a proposed channel profile provided and developed within the design criteria?	N	N	
Were specifications for materials and construction procedures provided and explained for the project (i.e., in-stream structures, erosion control measures, etc.)?	N	N	

Natural Channel Design Review Checklist

Project Design Checklist

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Item	Submitted (Y/N)	Acceptable (Y/N)	Comments
3.2 Sediment Transport			
Was sediment transport analysis required?	N	N	
If required, was the type of sediment transport analysis explained?	N	N	
Were existing versus design relationships of shear stress, velocity, and stream power versus stage or discharge provided?	N	N	
Did sediment transport capacity analyses show that the stream bed would not aggrade or degrade over time?	N	N	
Did sediment transport competency analysis show what particle sizes would be transported with a bankfull discharge?	N	N	
For gravel/cobble bed streams, does the proposed design move particles that are larger than the D100 of the stream bed?	N	N	
3.3 In-Stream Structures			
Based on the assessment and design, were in-stream structures required for lateral stability?	Y	N	Project has high probability for erosion and needs stability a
Based on the assessment and design, were in-stream structures required for vertical stability?	Y	N	Project has high probability for erosion and needs stability a
If required, was the reason for their location and use explained?	N	N	
Will the in-stream structures provide the intended stability?	N	N	
Were detail drawings provided for each in-stream structure?	N	N	
3.4 Vegetation Design			
Was a vegetation design provided?	Y	N	Not based on reference riparian zone.
Does the design address the use of permanent vegetation for long term stability?	N	N	
4.0 Maintenance and Monitoring Plans			
4.1 Maintenance Plan			
Was a maintenance plan provided?	Y	N	Inadequate monitoring period and lack of long term control.
Does it clearly state when maintenance will be required and if so, is it quantifiable?	N	N	Plan needs more detail and designated monitoring stations.
Does it clearly state how erosion will be addressed and by who?	N	N	

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Engineer: DSM Engineering

Item	Submitted (Y/N)	Acceptable (Y/N)	Comments
4.2 Monitoring Plan			
Was a monitoring plan provided?	Y	N	Inadequate details and lack of long term control.
Does it have measurable, quantifiable performance standards?	N	N	Performance standards are vague and do not comply with 2
Does it have clearly defined thresholds of success and failure?	N	N	
Is monitoring required for at least 3 years?	Y	N	EPA recommends 7-10 years of monitoring on forested syst
Does it state who is required to conduct the monitoring?	Y	N	Monitoring transfers to unidentified parties after 5 years.
5.0 Overall Design Review			
Does the design address the project objectives?	N	N	Plan lacks detail.
Is there any component of the design that adversely affects the success of the project?	N	Y	Creation of streams on steep slopes with highly altered geol

ENCLOSURE

Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army.

Authority: Section 404(q) of the Clean Water Act, 33 U.S.C. 1344(q)

PART IV – ELEVATION OF INDIVIDUAL PERMIT DECISIONS

1. Purpose: The purpose of PART IV is to provide the exclusive procedures for the elevation of specific individual permit cases. The elevation of specific individual permit cases will be limited to those cases that involve aquatic resources of national importance. (emphasis in the original) For example, cases that do not meet this resource value threshold cannot be elevated under this Part over a dispute concerning practicable alternatives. More specifically, the elevation of individual permit cases should be limited to those cases where the net loss (i.e., after considering mitigation) from the project (i.e., within the scope of impacts being evaluated by the Corps), will result in unacceptable adverse effects to aquatic resources of national importance. As a basis for comparison, these cases will cause resource damages similar in magnitude to cases evaluated under Section 404(c) of the Clean Water Act. The final decision on the need to elevate a specific individual permit case specific policy guidance rest solely with the ASA(CW).

Signed August 11, 1992 by Acting Administrator of the Water, Environmental Protection Agency, & Assistant Secretary of the Army for Civil Works, Department of the Army

